

ABSTRACT

A martensitic stainless steel pipe having a heat-affected zone with high resistance to intergranular stress corrosion cracking is provided. In particular, the martensitic stainless steel pipe contains less than 0.0100% of C; less than 0.0100% of N; 10% to 14% of Cr; and 3% to 8% of Ni on a mass basis. Alternatively, the martensitic stainless steel pipe may further contain Si, Mn, P, S, and Al within an appropriate content range. The martensitic stainless steel pipe may further contain one or more selected from the group consisting of 4% or less of Cu, 4% or less of Co, 4% or less of Mo, and 4% or less of W and one or more selected from the group consisting of 0.15% or less of Ti, 0.10% or less of Nb, 0.10% or less of V, 0.10% or less of Zr, 0.20% or less of Hf, and 0.20% or less of Ta on a mass basis. The content C_{sol} defined by the following equation is equal to less than 0.0050%: $C_{sol} = C - 1/3 \times C_{pre}$, wherein $C_{pre} = 12.0 \{Ti/47.9 + 1/2 (Nb/92.9 + Zr/91.2) + 1/3 (V/50.9 + Hf/178.5 + Ta/180.9) - N/14.0\}$ or $C_{pre} = 0$ when $C_{pre} < 0$.